

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231*GG*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/692, 846 10/19/00 KONOPKA

C 66161

022242 WM02/1003  
FITCH EVEN TABIN AND FLANNERY  
120 SOUTH LA SALLE STREET  
SUITE 1600  
CHICAGO IL 60603-3406

EXAMINER

EDOUARD, P

ART UNIT	PAPER NUMBER
----------	--------------

2644 *3*

DATE MAILED:

10/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks***GG*

<b>Office Action Summary</b>	Application No. 09/692,846	Applicant(s) <b>KONOPKA ET AL</b>
	Examiner <b>PATRICK N. EDOUARD</b>	Art Unit <b>2644</b>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1)  Responsive to communication(s) filed on \_\_\_\_\_
- 2a)  This action is FINAL.      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

#### Disposition of Claims

- 4)  Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-25 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved.
- 12)  The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- 13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

<input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
<input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____	<input type="checkbox"/> Other: _____

Art Unit: 2644

## **DETAILED ACTION**

### ***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6-10, and 18- 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Wyard et al (Spoken Language System-beyond prompt and response).

As per claims 1, 18-20, Wyard et al teach a natural language interface control system for operating a plurality of devices comprising:

"a first microphone" figure 5, his microphone)

" feature extraction module coupled to the first microphone"(his speech recognizer"

Art Unit: 2644

"a speech recognition module coupled to the speech recognition module; (His speech recognizer, page 193, his components of a spoken language system )and

"a device interface coupled to the natural interface module, wherein the natural language interface module is for operating a plurality of devices coupled to the device interface based upon non-prompted, open-ended natural language request from a user"( his prolog database, page 186, his system is based on a non-prompted to allow users to express their requirements more directly).

As per claim 2, Wyard et al the plurality of devices coupled to the natural languages interface module ( page 190-192, his Buscat, His Email and his film access ).

As per claim 3, Wyard et al wherein the speech recognition module utilizes an N-gram grammar ( page 194, left column, his N-gram model).

As per claims 4 and 22, Wyard et al wherein the natural language interface module utilizes a Probabilistic context free grammar (page 193, right column, his FSN recognizer).

As per claims 6, and 23-24, Wyard et al wherein the natural language interface abstracts each of the plurality of devices into a respective one of a plurality of grammar...plurality of devices ( pages 190, right column, his BusCat, his email wherein the dictionary is restricted to the devices being used).

As per claim 7, Wyard et al wherein the natural language interface module...upon receipt and recognition of an attention word (page 187, right column the user can express his requirement more directly).

Art Unit: 2644

As per claim 21, the speech recognition further comprises applying hidden Markov Models ( page 193, right column section 4.11 , his HMM language model).

As per claim 8-10, Wyard et al teach wherein the natural language interface module context grammar , acoustic models... of an attention word ( page 190, his Buscat).

4. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Chou et al (5,797,123).

Chou et al teach a method of speech recognition comprising: searching for an attention word based on a first context including a first set of grammar models ( figure 1, col.5 , lines 50-57 and col. 6, lines 1-67) ; and

switching upon finding the attention word to a second context to search for an open-ended user request, wherein second context includes a second set of models, grammar and lexicons ( figure 1, col. 5, lines 50-67 through col. 6, lines 1-67).

#### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2644

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 5, and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyard et al.

It is noted that Wyard et al teach the claimed invention but do not explicitly teach wherein the microphone array comprises a 3 dimensional microphone array. However, this feature is well known in the art. Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to substitute the microphone of Wyard et al by a 3 dimensional microphone because it would improve the recognition rate since the signal to noise ratio would be higher.

As per claim 11-16, it is noted that Wyard et al teach the claimed invention but does not explicitly teach wherein the device interface comprises a wireless device interface. However, this feature is well known in the art. Therefore one having ordinary skill in the art at the time the invention was made would have found it obvious to incorporate into the device interface a

Art Unit: 2644

wireless device interface because it would allow a user to use the device remotely that would render the interface more versatile.

7. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231 or faxed to:

(703) 308-9051, (for formal communications intended for entry) Or:

(703) 305-9508 (for informal or draft communications, please label "PROPOSED" or  
"DRAFT")

Hand-delivered responses should be brought to Crystal Park 11, 2121 Crystal Drive, Arlington,  
VA.,

Sixth Floor (Receptionist).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick N. Edouard whose telephone number is (703) 308-6725. The examiner can normally be reached on Tuesday-Friday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen, can be reached on (703) 305-4386.

The facsimile phone number for this Art Unit is (703) 872-9314. Alternatively, facsimile messages may be sent directly to (703) 305-9644 where they will be stored in the examiner's voice

Art Unit: 2644

mailbox (telling the examiner that a fax was received) and be automatically printed (i.e. - no delay by the examiner).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Patrick N. Edouard

September 26, 2001



PATRICK N. EDOUARD  
PATENT EXAMINER